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THE FALCONES OF NORTH AMERICA.

BY W. F. HENNINGER AND LYNDS JONES.

FALCO FUSCO CÆRULESCENS (*Vieillot*).

APLOMADO FALCON.

Geographical Distribution.

Southern Texas, New Mexico and Arizona, south to Patagonia. (Check List).

Measurements.

Male: Length 38, wing 23.5 to 27, tail 16 to 20.5, tarsus 4.3 to 4.7, middle toe 3.4 to 3.8, culmen 1.5 to 1.8.

Female: Length 49, wing 28 to 29.5, tail 20 to 22.4, tarsus 4.6 to 5, middle toe 4 to 4.3, culmen 1.7 to 2.1.

Diagnostic Marks.

Broad white band behind the eye, tail crossed by white bands and darker toward the tip, bluish-gray back, lighting on the ground.

Plumage.

Above, plain bluish-gray, tail darker toward end, tipped with white, and crossed by about eight narrow bands of the same, broad stripes behind eye chin, throat and chest, white, the stripe back of the eye changing to orange-rufous on back of head where the top of opposite sides unite. Sides and flanks blackish, narrowly barred with white. (Fisher).

Flight and Habits.

Its flight is light and easy. While hunting for food it often hovers over certain spots after the manner of the Sparrow Hawk, and when alighting it generally chooses the bare ground to rest on. Some observers report the bird as being very shy, while others state it is quite tame and unsuspicious. (Fisher).

Food.

Probably like that of the Pigeon Hawk, consists largely of small birds, insects and mammals, though little is known positively in reference to it. (Fisher).

Nest.

The nesting site is as variable as the surroundings will allow; sometimes the structure is placed in a yucca or cactus 10 or 15 feet from the ground, while at other times it may be found in a mesquit or other bush a few feet above the surface of the plain. The nest is composed of small twigs and plant stalks and usually has a lining of grass. When the abandoned nests of other birds are available they are used. (Fisher).

Eggs.

Apparently three in number, about 45 by 35 mm. Ground color a dirty yellowish white, thickly sprinkled with reddish and chestnut brown blotches and spots of various sizes, almost completely obscuring the ground color. There is said to be great variation in the markings of the eggs. Eggs are deposited from late March until the middle of May.

FALCO SPARVERIUS (*Linn.*).

SPARROW HAWK.

Whether or not one questions the validity of the numerous subspecies of this falcon the scope of this paper makes it unnecessary to describe more than the type form. The paragraph on the geographical distribution covers the whole group without special reference to any of the several color phases which are given subspecific rank.

Geographical Distribution.

Breeds from Florida, the Gulf Coast, and Durango, Mexico, north to Newfoundland and Alaska, and winters south to Costa Rica. (Cooke).

Measurements.

Extent 53 to 59 ctms. Male, length 24.56, wing 18.70, tail 12.40, culmen 1.27, tarsus 3.06, middle toe 2.41.

Female, length 26.64, wing 19.07, tail 12.82, culmen 1.32, tarsus 3.22, middle toe 2.52.

Diagnostic Marks.

Black markings of head (see photograph), red upperparts, call, hovering while feeding over meadows, small size.

Plumage.

Adult male: top of head, wing coverts and inner quills slate blue, the former with a rufous crown patch, the latter black spotted and crossed by a heavy black bar; sides of head and throat white, black stripe from lower eyelid, proceeding downward, another transverse black bar on the side of the neck and a black spot in the middle of the cervix; rest of upper parts, including tail, bright, rich chestnut rufous, black bars across the middle of the back, broad black subterminal bar on the tail, the central feathers tipped with rufous, the others with white. Lower parts white or buffy, or even rufous, with or without black spots, wing quills spotted with white on the inner webs, primaries with blackish.

Adult female: general coloration like the male, but with black bars over the back, wings and tail, the tail with ten or more bars; below streaked with rusty brown, sides often barred with blackish.

Young like adults.

Flight and Habits.

A bold, handsome, fearless hawk, sitting erect; swift of flight, with a forward and backward tendency to the wing stroke, often hovering or fluttering over prey or in search of food, circling high and playing with the wind in the mating season. Frequent about human habitations, nesting in cupolas or other places about buildings.

Food.

Principally mice and grasshoppers, English Sparrows, also other small rodents; sometimes lizards, small snakes, small song birds, various insects and larvæ, and spiders.

Voice.

"Kle kle kle kle kle"—"Kee hee."

Nest.

In hollow trees, in crevices of rocks, in holes of river banks, in buildings. Often no nesting material is placed in the hole, but sometimes considerable is used. Nests from April 1 south to June 1 north.

Eggs.

Three to seven, rounded ovate, 35.2 by 29 mm. Color very variable; rarely pure white, usually buffy, cream or rufous, sprinkled, marbled, mottled, blotched with walnut, cinnamon, chocolate, ochre and lavender. Incubation about 23 days.

FALCO DOMINICENSIS (*Gmelin*).

CUBAN HAWK.

Geographical Distribution.

Cuba, casual in Florida.

Measurements.

Male: length 22.86, wing 17.91, tail 12.75, middle toe 2.31, tarsus 3.81, culmen 1.27.

Female: tarsus 3.82, wing 18.54, tail 13.21, middle toe 2.31, culmen 1.30.

Diagnostic Marks.

Dark phase, plumbeous above, light phase, like *sparverius*, other diagnostic marks like *sparverius*.

Plumage.

Light phase, similar to *sparverius*, but fewer black spots above, lower parts merely overlaid or washed with orange color or else white; inner webs of quills not barred with dusky, merely touched with it; moustache indistinct; a conspicuous white superciliary stripe.

Dark phase, male above principally dark plumbeous, at times almost blackish, except the tail; a black collar across the hind neck; breast deep rusty, throat grayish. Female, above rufous (young male the same), lower parts deep rusty. Otherwise like *sparverius*.

Flight, habits, food, voice and nest like those of *F. sparverius*.

Eggs.

Three to five, laid in March and April, like those of *sparverius*, only smaller, averaging 31 by 28 mm.

AQUILA CHRYSÆTOS (*Spruengli*).

GOLDEN EAGLE.

Geographical Distribution.

Breeds from Nova Scotia, Maine, central Ontario, Manitoba, South Dakota, western Texas, and central Mexico, north to northern Labrador and northern Alaska; also breeds south in the Alleghenies to southwestern North Carolina, and also in the northern part of the Eastern Hemisphere south to northern Africa and the Himalayas. (Cooke).

Measurements.

Extent 196 to 230 cm. Male: length 83.82, wing 60.45, tail 36.83, tarsus 9.40, culmen 3.94, middle toe 6.60, hind claw 6.8.

Female: length 96.52, wing 67.31, tail 40.21, tarsus 9.72, culmen 4.52, middle toe 6.78.

Diagnostic Marks.

Large size, feathered tarsus, black color. In the field cannot with certainty be distinguished from young Bald Eagle at a distance.

Plumage.

Dark brown, lanceolate feathers of occiput and neck tawny (hence "Golden" Eagle). Quills and tail blackish. Tail with basal third whitish, outer two-thirds dark gray. Tarsus fully feathered to the toes, lighter colored.

Young: similar, only two-thirds of the tail pure white (these distinctions have given the excuse for the so-called subspecies *fulva* by European writers).

Flight and Habits.

Contrary to the older writers, modern authors and observers consider this eagle gentle and unsuspicious even at the nest, only extreme hunger making them ferocious, as is the case with most any animal or bird. A clean, noble looking bird, keen of eyesight, powerful in flight, erect in posture, rather shy and wary at all times, exceedingly swift.

Food.

In the west principally small rodents, as marmots, gophers,

ground squirrels, prairie dogs, wood rats, hares, but also lambs, shoats, fawns, grouse, ducks, geese, swans, small waders, snakes (quite often), in the east more frequently poultry and the young of domestic animals, because the wild food is not so abundant as in the west.

Voice.

"Kiah, kiah, kiah" (alarm), "Kee kee kee" (mating), "Kau kau" (mating).

Nest.

On cliffs in the mountains principally in the east, in live oaks, white oaks, and pines, in the west. Nest bulky, built of large sticks and clubs, very flat, lined with grass, straw, Spanish moss, Spanish soap root tops, feathers, wool, cattle hair. Placed high up, as high as 100 feet, at times very low.

Eggs.

One to three. Plain white, sometimes unmarked, mostly marked thickly with spots and blotches of shades of brown, chocolate, walnut, drab, or rufous, differing greatly in size and color. Ovate, coarse, thick, roughly granular shell. Eggs laid from the last of January in the southwest to May and June in the north. One brood. Incubation 35 days. The eggs measure 75 by 60 mm.

ARCHIBUTEO LAGOPUS SANCTI-JOHANNIS
(*Gmelin*).

ROUGH-LEGGED HAWK.

Geographical Distribution.

Breeds from Newfoundland, southern Mackenzie, and central British Columbia, north to northern Labrador and northern Alaska, and winters south to North Carolina, Louisiana, Texas, and central California. (Cooke).

Measurements.

Extent 140 ctm. Male: length 52, wing 39.48, tail 24, culmen 2.03, tarsus 5.84, middle toe 3.30.

Female: length 55.89, wing 43.10, tail 26.4, culmen 2.41, tarsus 6.60, middle toe 3.81.

Diagnostic Marks.

Large hawk size, though smaller than an eagle; feathered tarsus, blackish appearance, crepuscular habits, slow flight; much hovering over swamps and meadows while feeding.

Plumage.

Adult: head and neck white streaked with dusky brown, rest of upper parts brownish-gray with ochraceous markings, outcropping of feathers white, gray, and buffy, upper tail coverts and larger part of base of tail white. A broad dusky band across the terminal part of tail, preceded by several narrow bands. Lower parts white or buffy with dusky spots on the breast, irregular broad dusky band across the abdomen, thighs usually tinged with rusty.

Immature: terminal portion of tail grayish, the band across the abdomen broad, solid, unbroken, otherwise like adult.

Melanistic phase: from specimens which are a solid black excepting white-barred tail and basal white on primaries, to somewhat lighter colored specimens, up to the normal phase, not due to age, sex, or season. (This melanistic phase is not found in Europe or Asia in the species *lagopus* proper, which has not been taken in North America, and consequently omitted from this list).

Flight and Habits.

Large, powerful, but gentle and peaceful, crepuscular, almost nocturnal in habits; sitting not very erect; flight graceful, easy, low in general, sometimes soaring high, at other times hovering like a Sparrow Hawk, poising in the air to drop down on its prey. Never fierce, not even when wounded. Prefers places where groves and fields alternate. Catches its food mostly in fields, meadows, and the open prairie, perching on trees in the vicinity of its feeding grounds.

Food.

Mice, gophers, rats, shrews, frogs, snakes, lizards, sometimes grubs, worms, caterpillars, rarely a bird.

Voice.

High pitched Ki-ah ke-ah—ki-yak.

Nest.

Mostly in trees, principally in pines, about six meters above ground, sometimes on high cliffs; nest composed of sticks, shallow, lined with grass, moss, weed stalks, and the like.

Eggs.

Two to five, laid from the end of May to the end of June. Shell closely grained. Vary greatly in size, shape, and color. Color greenish or soiled white, with streaks, spots, and blotches of reddish brown and chocolate, in all styles of markings, regular and irregular, sparingly or heavily, though apparently never unmarked. Similar to eggs of *Buteo buteo* or *B. lineatus*. 55.4 by 44.6. One brood only. Incubation 27 days.

ARCHIBUTEO FERRUGINEUS (*Licht*).

FERRUGINOUS ROUGH-LEG.

Geographical Distribution.

Breeds from Kansas, northwestern Texas, and California north to southern Manitoba, southwestern Saskatchewan, and southern Washington; winters south to northern Mexico, and has occurred casually east to Wisconsin and Illinois. (Cooke).

Measurements.

Male: length 57.2, wing 40.4 to 42.7, tail 24.2 to 26.5, tarsus 6.99.

Female: length 63.5, wing 42.7 to 47.7, tail 26.5 to 28.

Diagnostic Marks.

In general like the Rough-leg, but plumage lighter and with strong suffusion of rusty, tail much lighter, but with the same pattern.

Plumage.

General pattern like that of the Rough-leg, but with reddish prevailing over white or black in any of the phases of plumage.

Flight and Habits.

General habit not much differing from that of the Rough-leg. Soaring or flapping lazily, flying low while feeding, hovering over prey, but shows no partiality for the vicinity of

water. It is also a bird of the open ground, where it feeds after the manner of the Rough-leg.

Food.

Dr. A. K. Fisher says: "The food of this Hawk consists almost exclusively of small mammals and reptiles, and, like the Rough-leg, never attacks birds.

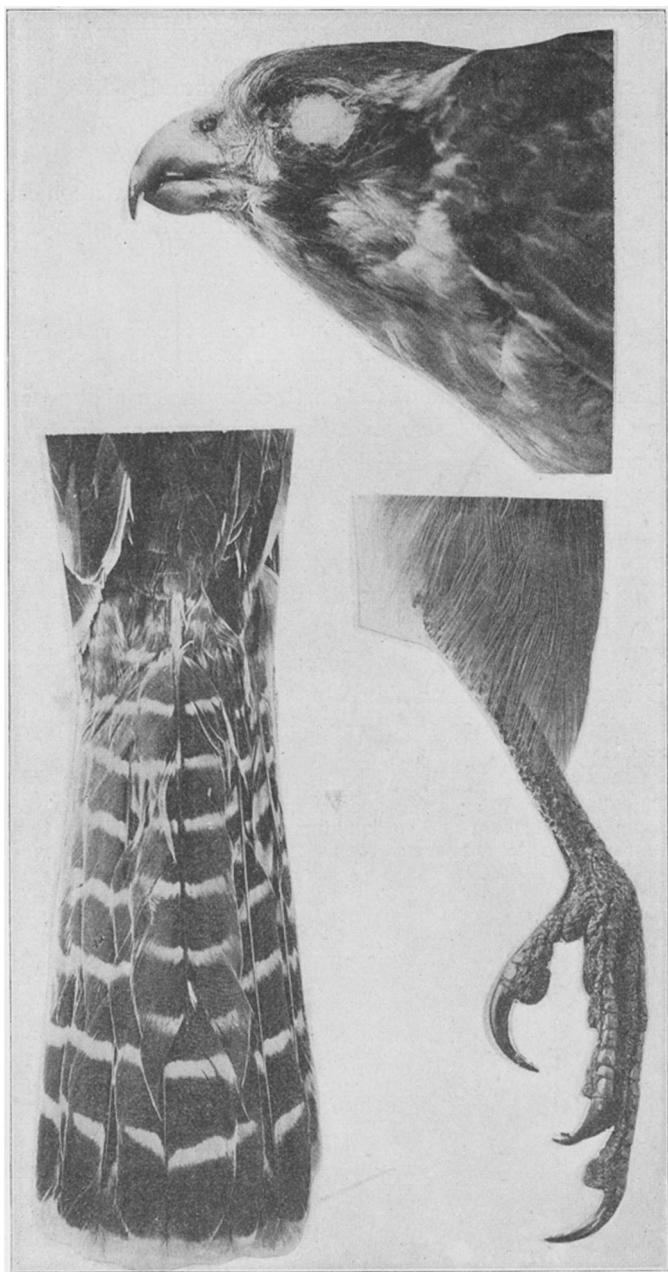
Nest.

"The nest is usually built in a tree at no great distance above the ground, but when trees are not available it is placed on the shelves of some of the earth cliffs which abound in certain parts of the West. Like that of other large hawks, it is composed of good-sized sticks and coarse herbage of one kind or another, and is lined with softer material than the bulk of the structures is composed of. When such things existed on the plains, the ribs and smaller bones of the buffalo were used in the construction of the nest, often forming a large part of it." (Fisher).

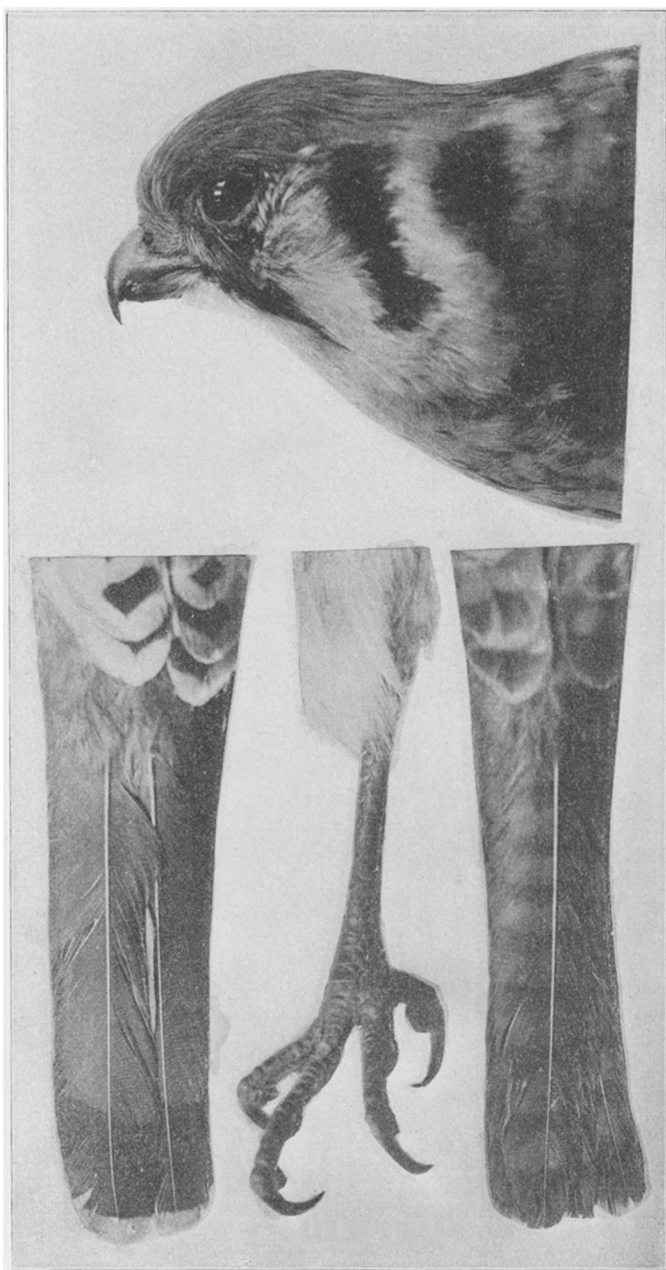
Eggs.

Three or four in number, deposited early in May, and by the middle of July the young are able to leave the nest. (Fisher).

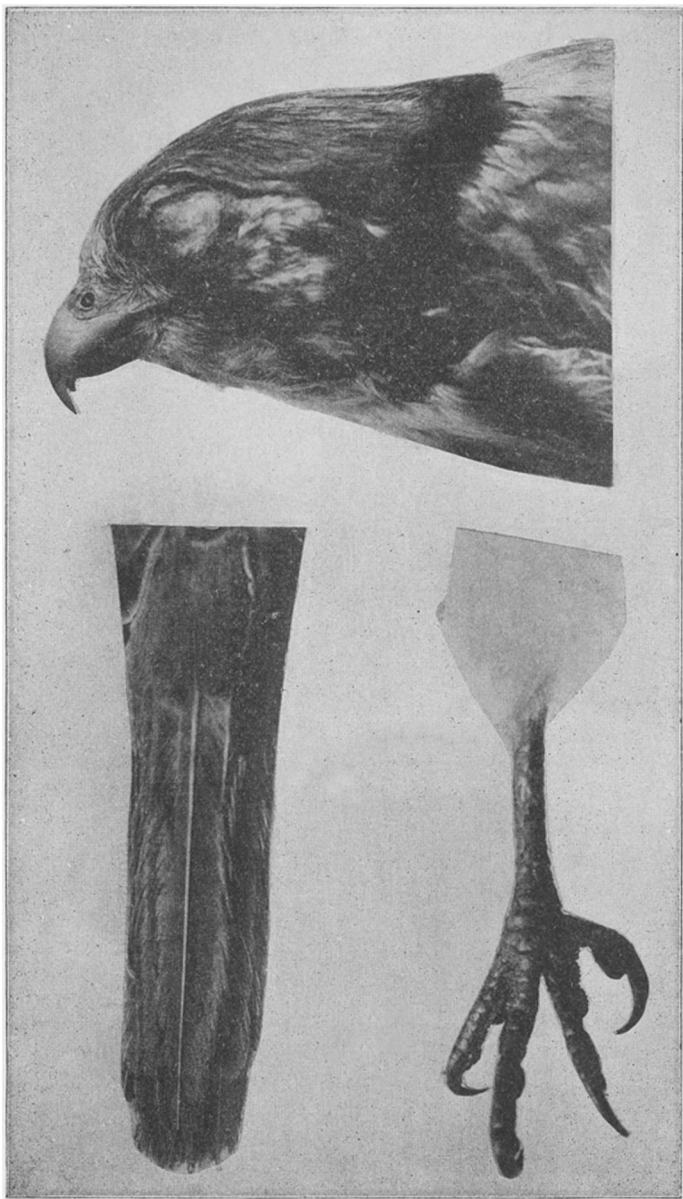
The difficulty of securing specimens suitable for making pictures has made it necessary to so combine pictures in the plates that specific reference to specimens seems inadvisable.—ED.



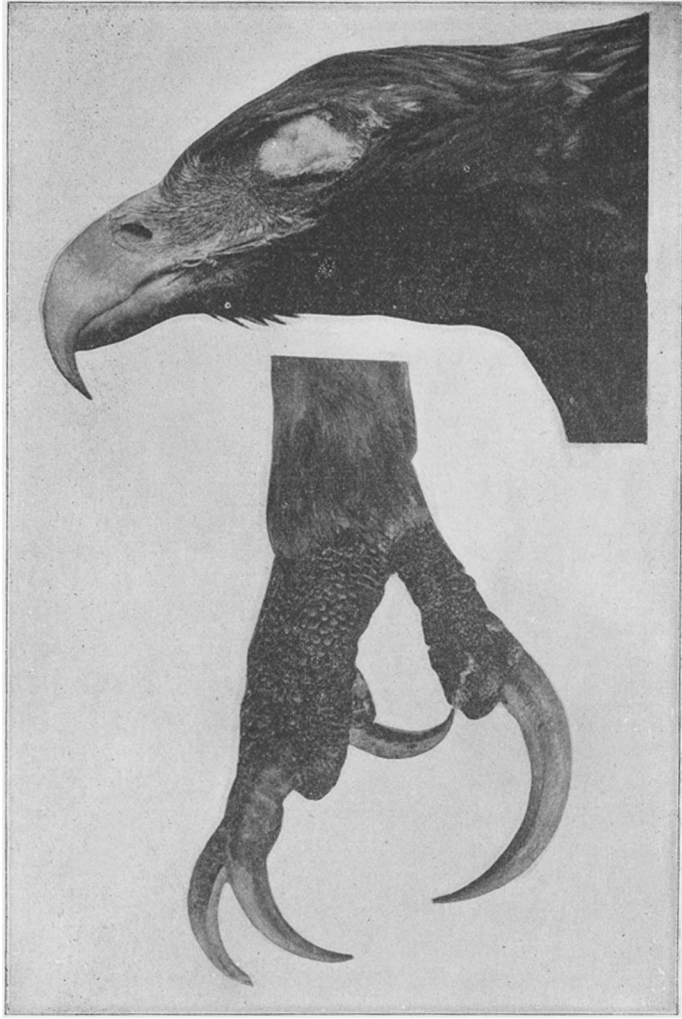
Falco fusco-carulescens, Aplomado Falcon.



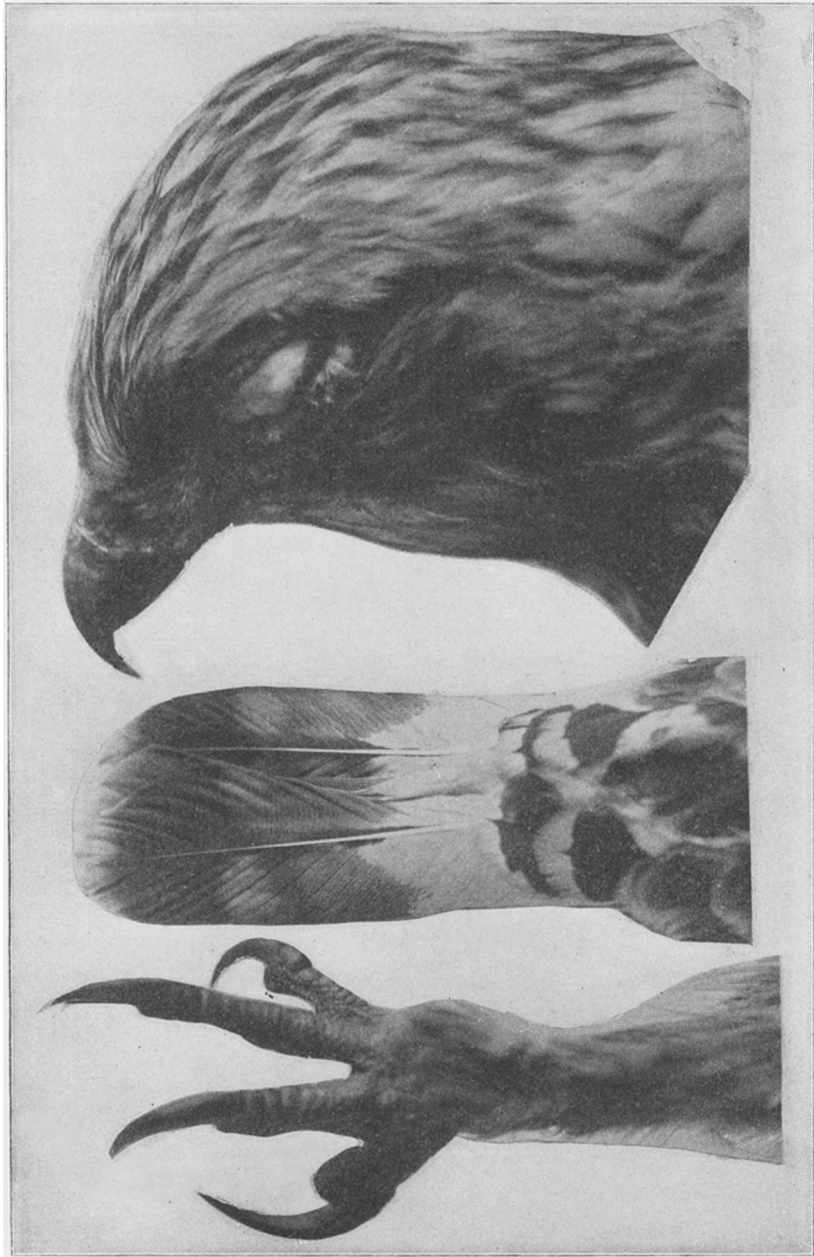
Male *Falco sparverius*, Sparrow Hawk. Female



Falco dominicensis, Cuban Hawk.



Aquila chrysaetos, Golden Eagle.



Archibuteo lagopus sancti-johannis, Rough-legged Hawk.